

CLAIMS

What is claimed is:

1. A headset system, comprising:

5 a headset having a headset microphone;
a speech recognition engine configured to receive audio signals from the headset microphone and to interpret the audio signals received via the headset microphone when activated, the speech recognition engine being further configured to interpret audio signals representing at least one of digits, letters, and numbers; and
10 an in-band dual tone multi-frequency (DTMF) tone generator in communication with the speech recognition engine and configured to generate in-band DTMF tones representing the interpreted at least one of digits, letters, and numbers.

2. The headset system of claim 1, further comprising a DTMF activation button in communication with the speech recognition engine for activating the speech
15 recognition engine.

3. The headset system of claim 1, wherein the speech recognition engine is activated by a voice command.

4. The headset system of claim 1, further comprising a headset base unit containing the in-band DTMF tone generator and the speech recognition engine.

5. The headset system of claim 1, wherein the headset further includes the in-band DTMF tone generator and the speech recognition engine.

6. The headset system of claim 1, further comprising a voice synthesizer in communication with the speech recognition engine.

5 7. The headset system of claim 6, further comprising a headset speaker in communication with the voice synthesizer, the speech recognition engine is further configured to confirm accuracy of the interpreted audio signals via the speech recognition engine and the headset speaker.

8. The headset system of claim 1, wherein the in-band DTMF tone generator
10 generates in-band DTMF tones with a direct correspondence to the interpreted audio signals.

9. The headset system of claim 1, wherein the speech recognition engine is configured to process audio signals for a plurality of the at least one of digits, letters, and numbers and the in-band DTMF tone generator is configured to generate a plurality of in-
15 band DTMF tones in response thereto.

10. The headset system of claim 1, wherein the speech recognition engine is configured to process audio signals for the at least one of a digit, letter, and number individually, and the in-band DTMF tone generator is configured to generate an in-band DTMF tone in response thereto.

11. The headset system of claim 1, wherein the speech recognition engine is further configured to interpret a predefined set of commands and/or user responses.

12. A method for navigating through a dual tone multi-frequency (DTMF) controlled system, comprising:

5 activating a speech recognition engine;

 interpreting speech received via a microphone from a user by the speech recognition engine, the speech recognition engine being configured to interpret the speech representing at least one of digits, letters, and numbers; and

 generating and transmitting in-band DTMF tones representing the
10 interpreted speech by an in-band DTMF tone generator in communication with the speech recognition engine.

13. The method of claim 12, wherein the activating the speech recognition engine is via a DTMF activation button in communication with the speech recognition engine.

15 14. The method of claim 12, wherein the activating the speech recognition engine is via voice command from the user.

15. The method of claim 12, further comprising, prior to the generating and transmitting, confirming accuracy of the speech interpreted by the speech recognition engine by generating the interpreted speech via a voice synthesizer.

16. The method of claim 12, wherein the in-band DTMF tone is direct translation of the interpreted speech.

17. The method of claim 12, wherein the speech recognition engine is configured to process speech for a plurality of the at least one of digits, letters, and
5 numbers and the in-band DTMF tone generator is configured to generate a plurality of in-band DTMF tones in response thereto.

18. The method of claim 12, wherein the speech recognition engine is configured to process speech for the at least one of a digit, letter, and number individually, and the in-band DTMF tone generator is configured to generate an in-band
10 DTMF tone in response thereto.

19. The method of claim 12, wherein the speech recognition engine is further configured to interpret a predefined set of commands and/or user responses.

20. A method, comprising:
connecting to a DTMF-controlled system, in which navigation through the
15 DTMF-controlled system is via transmission of DTMF tones thereto;
interpreting speech by a speech recognition engine configured to receive speech from a user; and
generating and transmitting in-band DTMF tone to the DTMF-controlled system, the in-band DTMF tones being a translation of the interpreted speech selected
20 from at least one of digits, letters, and numbers.

21. The method of claim 20, further comprising, after the connecting, activating the speech recognition engine.

22. The method of claim 20, further comprising, prior to the generating and transmitting, confirming accuracy of the speech interpreted by the speech recognition
5 engine by generating the interpreted speech via a voice synthesizer.

23. The method of claim 20, wherein the in-band DTMF tone is a direct translation of the interpreted speech.

24. The method of claim 20, wherein the speech recognition engine is configured to process speech for a plurality of the at least one of digits, letters, and
10 numbers and the in-band DTMF tone generator is configured to generate a plurality of in-band DTMF tones in response thereto.

25. The method of claim 20, wherein the speech recognition engine is configured to process speech for the at least one of a digit, letter, and number individually, and the in-band DTMF tone generator is configured to generate an in-band
15 DTMF tone in response thereto.

26. The method of claim 20, wherein the speech recognition engine is further configured to interpret a predefined set of commands and/or user responses.